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ABSTRACT

The author stresses that diagnosis is desirable only when it leads to special education intervention. Diagnosis in a service vacuum is seen to be unnecessary and frustrating for parents and teachers of handicapped children. It is also emphasized that assessment of intraindividual differences is more valuable than that of interindividual differences and that IQ score has limited value in providing information about a child's strengths and deficiencies upon which prescriptive teaching programs can be developed. Finally, it is suggested that familiarity with the concepts and techniques of criterion-referenced testing is helpful for teachers to construct informal tests for classroom uses and that criterion-referenced testing is also closely integrated with self-paced, individualized instruction. (Author/SBH)

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Assessing and Identifying the Developmental and Educational Needs
of the Exceptional Individual

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ABSTRACT

Historically, special education has focused a great deal of attention on early diagnosis and assessment of individual exceptionalities through the application of norm-referenced tests, it thus usually resulted in some negative effects of labeling and categorizing. This paper stresses that diagnosis is desirable only when it leads to special education intervention. Diagnosis in a service vacuum is unnecessary and frustrating for parents and teachers of handicapped children. It is also emphasized that assessment of intraindividual differences is more valuable than that of interindividual differences. Since intelligence is not a single unitary ability, IQ score has limited value in providing information about a child's strengths and deficiencies based on which prescriptive teaching programs can be developed. Finally, it is suggested that familiarity with the concepts and techniques of criterion-referenced testing is helpful for teachers to construct by themselves informal tests for classroom uses, criterion-referenced testing is also closely integrated with self-paced, individualized instruction.

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Assessing and Identifying the Developmental and Educational
Needs of the Exceptional Individual

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I. Introduction

It is a pleasure and honour for me to contribute to the opening session of this important Conference. However, I find it a challenge for me to speak on this topic this morning in just 15 minutes. The literature on measurement and testing is so extensive and the issue of diagnosis and identification is so controversial, that it is difficult for me to enumerate an adequate number of new trends within my time-allowance. What I am going to do is just to discuss three crucial points somewhat intertwined with each other but closely related to the conceptual change in special education, hoping that it may serve as an introductory remark for further discussion at the panels and seminars during this conference.

Although testing and measurement has been given its great impetus by our special education profession, there is widespread disenchantment with intelligence testing in certain parts of the world. It is also remarkable to note that the emphasis has swung away from so-called norm-referenced testing to criterion-referenced testing. Historically, special education has focused a great deal of attention on early diagnosis and differential diagnosis of etiological factors. Currently, there is a continuing debate and bitter questioning going on with these beliefs. Special educators today are in general more aware of the negative effects of labelling and categorizing usually produced by unnecessary and inappropriate diagnosis. The advancement of psychological research within the last thirty years also

has brought us to a new perspective of the concept of intelligence and to a better knowledge of the learning process so that our teachers are able to apply testing and evaluative instruments in a more constructive way.

II. Diagnosis Just for Educational Intervention

In an article entitled "Diagnosis Diagnosed," Wolf Wolfensberger enumerated six superstitious beliefs commonly found in some parts of the world where special education is still under the influence of the medical profession. They are: (1) Diagnosis is better than no diagnosis; (2) Early diagnosis is better than late diagnosis; (3) Diagnosis is essential to successful treatment or case management; (4) Differential diagnosis is important for differential treatment; (5) Extensive evaluation is better than limited evaluation; (6) Team diagnosis is better than individual diagnosis. (Wolfensberger, 1965)

The first half of the twentieth century witnessed a strong awakening of interest in individual differences and consequently brought about the testing industry as a new educational enterprise. So many people in special education, both professional and lay, see diagnostic evaluation as an indispensable step toward educational services and assumed that by assessing a child with a test that has standardized norms, one can separate children into homogeneous diagnostic categories or groups. They also presumed that children so categorized share essential behavioral characteristics that are relevant to their remedial education.

In the same perspective, quite a number of educators advocated the need of early identification so that some kind of preventive measure could

be applied to those educationally high risk children before they are exposed to the academic demand of schooling. However, some pertinent questions have been raised during the last decade, for example, Keogh and Becker questioned in an illuminative article: (1) How valid are the identifying or predictive measures? (2) What are the implications of diagnostic data for remediation or educational intervention? (3) Do benefits of early identification outweigh possible damaging or negative effects of such recognition? (Keogh & Becker, 1973)

Diagnosis is desirable only when it leads to practical application. What good does diagnostic evaluation do if it fails to introduce remedial programs? We are more and more aware of the fact that there are special educational professionals who use diagnosis just for diagnosis' sake, I mean that they diagnose just for categorizing and labelling. For whatever reason, diagnosis becomes an excuse for educational failure and an escape from responsibility. We fully agree with Wolfensberger's suggestion that diagnostic service development should not precede other service development but should follow it. Since diagnosing in a service vacuum, a phenomena so common in some developing regions, is undoubtedly very frustrating for parents and teachers of exceptional children, it may result in the child's exclusion from a program previously enrolled in.

The belief in the importance of differential diagnosis seems primarily derived from the medical emphasis on etiological diagnosis. Medical and psychiatric disciplines have wielded great influence on the nomenclature used to identify and classify children with special needs. The literature of special education today still abounds in a multitude of medical terms for exceptional children. Aside from the disasters resulting from possible

misdiagnosis and mislabelling, etiological diagnosis is in most cases educationally irrelevant and leads to labelling and categorizing which are detrimental to the child.

In many circumstances, psychologists and physicians satisfy themselves easily with a label and believe that they have an answer to the problems of the child referred to them. But in fact their labelling and categorizing does not help the teacher very much in his programming and teaching of the child so labelled. It is now widely recognized that the negative effects of labelling are possible to produce built-in expectancy phenomena. We have already known that lowered teacher expectation may affect the child's performance and thus becomes a self-fulfilling prophecy. (Braun, 1976)

Moreover, overemphasis of certain incurable inabilities may cause anxiety on the part of parents and thus reflected in their interactions with the child to produce debilitating effects upon his self-concept.

III. Assessment of Intraindividual Differences

Diagnosis is desirable when it provides basic information about a child's strengths and deficiencies because prescriptive teaching programs can be developed based on such information. Unfortunately, many psychological measurements conclude with a global score such as IQ which merely gives a vague answer of a child's handicap.

It is essential to note that intelligence is not a single, unitary ability; but rather a composite of several mental functions. (Resnick, 1976) IQ as a global indication of an individual's ability relative to his age norm, conveys nothing about the intraindividual variability within himself.

For example, if we group students into homogeneous classes according to their scores on intelligence tests, the students would still be very heterogeneous with respect to their other characteristics. Although it was Alfred Binet's contribution to bring about the concept of a pervasive, general intelligence at the turn of this century, he did not intend to emphasize numerical scores as much as it is practiced today. We also understand that Binet introduced the concept of Mental Age not for categorizing children but for putting each child in terms of the level he has reached on the ladder of intellectual development. (Cronbach, 1970)

Unfortunately, many psychologists nowadays prefer to see intelligence tests as tools for measuring inborn potential as well as describing the rate of development. They also assume that IQ score is unchangeable and that there is a high relationship between IQ and achievement in all school subjects.

More and more special educators now realize that IQ score has limited values in planning instruction for their students. The reasons are evident: (1) For most of the students, IQ score may change 15 points or more during a certain period of years; (2) Owing to various orientation of each evaluative device, different IQ tests usually result in somewhat different scores for the same child; (3) A child's performance level may be affected by nonintellective factors, such as test anxiety, motivation for achievement, psychomotor stability, etc. In this perspective, focus of attention has been gradually shifted from interindividual differences to intraindividual differences.

It is customary for a clinical psychologist to explore the pattern and profile of test scores for possible indices of psychopathology, since

most personality and psychoneurotic disorders do not affect all intellectual functions uniformly. For the same reason some functions are believed to remain relatively unaffected, while others are considered to be more sensitive to a particular learning disorder. To meet this increasing demand of differential approach to the intellectual measurement, test construction has been changing in the direction of multifaceted view of intelligence.

The first attempt at constructing such a test was the Wechsler Intelligence Scale for Children (WISC). The Illinois Test of Psycholinguistic Abilities (ITPA) is also based on the concept of intraindividual differences and intends to diagnose possible deficits in the psycholinguistic process of a child. There are still many other tests, such as Differential Aptitude Test (DAT), which consists of eight sub-tests; verbal, spelling, sentences, numerical, abstract reasoning, spatial, mechanical and clerical. Quite a number of scales of this sort have been generally patterned after the extensive research of primary mental abilities conducted by L. L. Thurstone and after the three dimensional structure of the intellectual model advocated by J. P. Guilford.

Information processing conception of intelligence has been getting popular due to the recent surge of cognitive psychology. Jean Piaget, who has never been interested in individual differences, concerns himself particularly with the cognitive structuration of child development. We can envisage that psychometrics and cognitive theories of information processing shall unify their efforts in their quest to know better the intra-individual variability of a child.

IV. Criterion-referenced Testing for Individualized Instruction

The development of special education programs in many countries brings about significant steps forward in improving learning by individualization. During the last decade, several individualized instruction programs such as Master Learning, Individually Prescribed Instruction, have been well received in some parts of the world. In this new context of individualized programs, criterion-referenced tests emerge as an alternative model for testing and measurement. While traditional norm-referenced tests are constructed specifically to facilitate comparison among students, criterion-referenced tests provide more concrete information about what an individual student can or cannot do, and hence, are more applicable to individualized instruction or any other student-centered approach.

The recent growth of criterion-referenced testing represents a shift of focus of our schools from the traditional group-based approach to an individualized approach. In group-based approach, teachers direct their teaching to the average of the group and evaluate an individual's abilities and achievement in comparison to that of other learners in the group, and thus norm-referenced tests are principally designed to produce test scores suitable for ranking individual learners on the ability measured by a test. By contrast, instruction that is individualized attends to the abilities and the achievement level of each learner. It strives to involve the student actively in the learning process and allows students in the same class to be at different points in the curriculum. Its focus of evaluation is consequently different from the group-based ones. Criterion-referenced tests are thus designed to meet the measurement need of this new instructional model. Although the term was first proposed by Robert Glaser late in 1963, criterion-referenced testing has already found its

application in many innovations in education. In all such systems known to be individualized, self-paced, computer-assisted, testing is closely integrated with instruction to check on prerequisite skills, diagnose possible learning difficulties and prescribe subsequent instructional procedure. (Hambleton, 1974)

The major distinguishing feature of criterion-referenced testing is its interpretation of test performance in terms of content meaning. It is based on a set of behavioral or performance objectives which the test attempts to measure. The focus is clearly on what the student can do and what he knows, not on how he is compared with others. In this respect, the measurement may exert a salutary effect on dispersing the misconceptions attached to IQ scores, since the scores it assesses are interpreted in terms of the specific intellectual skills and knowledge rather than in light of vague underlying entities.

Criterion-referenced measurement is also known as a testing for mastery. As we know, most educators, who are for individualized instruction, advocate that given enough time and suitable instructional method, nearly everyone can achieve complete mastery of the chosen instructional objectives, individual differences would thus be manifested in learning time rather than in final achievement as revealed in traditional educational testing. It follows that in criterion-referenced testing, individual differences in performance are of little interest. (Anastasi, 1976)

Familiarity with the concepts and techniques of criterion-referenced testing can contribute to the improvement of informal tests prepared by teachers for classroom use. It is also potentially helpful to the construction of intelligence tests, derived from Piaget's theory of cognitive

development, which would provide useful information beyond the prediction, selection and placement that most of the commercially standardized tests have been used for. Our attention in evaluation should be focused on evaluating each learner as a person instead of as a number.

In conclusion, testing and measurement is closely related to many decision making situations in schools. Historically, assessment instruments have focused chiefly on attempts to explain exceptionalities in a child and have frequently drawn some hypothetical rationales in terms of labels and categories which become an even more potent source of handicap for the child. During the last two decades, we can see dramatic changes in certain parts of the world. Psychological tests are mostly employed to provide diagnostic information about a child's strengths and weaknesses as a learner with a view to designing an appropriate individualized program to meet his educational needs. Special educators are now more competent in constructing informal tests and in administering published diagnostic tools for educational purpose.

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